

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

As an initial matter, the Examiner has not initialed next to the first page of submitted references as being considered on a form PTO-1449 attached to the Office Action. Applicants respectfully request that the Examiner consider the same and re-issue the form 1449 in a next Office Action/Notice of Allowance.

As another initial matter, the Examiner has not acknowledged receipt of the certified copy of the priority document. Applicants respectfully request that the Examiner acknowledge the claim of priority made on March 1, 2004 in the next Office Action/Notice of Allowance.

In the Official Action, the Examiner objects to claim 7 because the recitation of "extending the distal end and proximal end." The Examiner does not indicate why such phrase is objected to but suggests that the same be amended to --extending between the distal end and proximal end so that the first axis is present between the two ends and not only at the ends--. Applicants disagree with such wording and instead have amended claim 7 to simply recite --extending through the distal end and proximal end--.

Accordingly, it is respectfully requested that the objection to the claims be withdrawn.

In the Official Action, the Examiner rejects claim 10 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner argues that the phrase "the treatment section is a clip" is improper since claim 10 depends from claim 7 which recites that the treatment section receives rotation force from the rotation control section. The Examiner suggests that claim 7 be amended to recite either

(1) --the treatment section is an end effector" or (2) the treatment section further comprises a clip." In response, claim 10 has been amended to recite that "the treatment section has a clip."

Accordingly, it is respectfully requested that the rejection of claim 10 under 35 U.S.C. § 112, first paragraph, be withdrawn.

In the Official Action, the Examiner rejects claims 1-17 under 35 § U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 1, 2, 3, 7, 13 and 16, the Examiner objects to the term "vertical" as confusing and suggests either "perpendicular" or "parallel." In response, claims 1, 2, 3, 7, 13 and 16 have been amended as suggested by the Examiner.

Again with regard to claims 1, 2, 3, 7, 13 and 16, the Examiner argues that the description of the second and third axes as "passing across" the center axis is confusing. In response, claims 1, 2, 3, 7, 13 and 17 have been amended to change the same to "bisecting."

With regard to claims 1, 4, 5, 7, 13 and 16, the Examiner argues that the reference to a "reference wire" is confusing since it is not clear what flexural rigidity and torsional rigidity such a wire may have. In response, claims 1, 4, 5, 7, 13 and 16 have been amended to clarify the same.

With regard to claim 3, the Examiner argues that the two occurrences of "the dimension" is confusing and does not have an antecedent basis. In response, claim 3 has been amended to change each occurrence to --a dimension-- to provide a proper antecedent basis. Applicants respectfully submit that the first occurrence refers to a dimension of the section along the second axis and the second occurrence refers to a dimension of the section along the third axis.

Accordingly, it is respectfully requested that the rejection of claims 1-17 under 35 U.S.C. § 112, second paragraph, be withdrawn.

In the Official Action, the Examiner rejects claims 1-9, 12, 16 and 17 under 35 U.S.C. § 102(e) (as best understood) as being anticipated by U.S. Patent No. 6,443,909 to Ouchi (hereinafter “Ouchi”). Additionally, the Examiner rejects claims 1-10 and 12-17 under 35 U.S.C. § 102(e) (as best understood) as being anticipated by U.S. Patent No. 6,824,548 to Smith (hereinafter “Smith”). Lastly, the Examiner rejects claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Ouchi.

In response, Applicants respectfully traverse the Examiner’s rejections under 35 U.S.C. §§ 102(e) and 103(a) for at least the reasons set forth below. However, independent claims 1-3, 7, 13 and 16 have been amended to clarify their distinguishing features.

Specifically, claim 1 has been amended to recite (in clean copy) a close-wound coil comprising:

“a first axis which extends along a center axis of the close-wound coil; and

a single wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the lengthwise direction thereof;

wherein the wire has a cross section perpendicular to the center axis, a second axis bisecting the center axis within the section and perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis;

the cross section of the wire is formed to have the second axis larger than the third axis; and

when a flexural rigidity of the wire has a circular cross section with a diameter equal to an outside diameter in the direction of the second axis of the cross section, is formed homogeneously across an entirety of the circular cross section, and is formed substantially the same as a flexural rigidity of a first reference wire extending in the direction perpendicular to the cross section, the wire has a lower torsional rigidity than that of the first reference wire.”

Claim 2 has been amended to recite (in clean copy) a close-wound coil comprising:

“a first axis which extends along a center axis of the close-wound coil; and

a single wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the length direction thereof;

wherein the wire has a section perpendicular to the center axis, a second axis bisecting the center axis within the section and perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis, and

the section is formed to have the second moment of area concerning the second axis smaller than the second moment of area concerning the third axis.”

Claim 3 has been amended to recite (in clean copy) a close-wound coil comprising:

“a first axis which extends along a center axis of the close-wound coil; and

a wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the length direction of the first axis;

wherein the wire has a section perpendicular to the center axis, a second axis bisecting the center axis within the section and perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis, and
the section is formed to have a dimension along the second axis larger than a dimension along the third axis.”

Claim 7 has been amended to recite (in clean copy):

“A medical treatment tool having a distal end which is inserted into a body through an endoscope channel and a proximal end arranged outside the body comprising:

a close-wound coil having a distal end and a proximal end, the close-wound coil including;

a first axis extending through the distal end and proximal end;

a single wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the length direction thereof;

the wire having a cross section perpendicular to the center axis, a second axis bisecting the center axis within the section and

perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis;

a rotation control section which is provided at the proximal end of the close-wound coil, for rotating the close-wound coil around the first axis; and

a treatment section which is located closer to the distal end than the close-wound coil, and receives the rotation force from the rotation control section through the close-wound coil;

the cross section of the wire is formed to have the second axis larger than the third axis; and

when a flexural rigidity of the wire has a circular cross section with a diameter equal to an outside diameter in the direction of the second axis of the cross section, is formed homogeneously across the entire circular cross section, and is formed substantially the same as a flexural rigidity of a first reference wire extending in the direction perpendicular to the cross section, the wire has a lower torsional rigidity than that of the first reference wire.”

Claim 13 has been amended to recite (in clean copy) a medical treatment tool

used in combination with a medical endoscope, comprising:

a mantle tube; and

a close-wound coil inserted into the mantle tube; the close-wound coil comprising:

a first axis extending between the distal end and proximal end, and

a wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the length direction thereof,

the wire having a section perpendicular to the center axis, a second axis bisecting the center axis within the section and perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis; the medical treatment tool further comprising:

a control section for rotating the close-wound coil with respect to the mantle tube;

wherein the cross section of the wire is formed to have the second axis larger than the third axis; and

when a flexural rigidity of the wire has a circular cross section with a diameter equal to an outside diameter in the direction of the second axis of the cross section, is formed homogeneously across the entire circular cross section, and is formed substantially the same as a flexural rigidity of a first reference wire extending in the direction perpendicular to the cross

section, the wire has a lower torsional rigidity than that of the first reference wire."

Claim 16 has been amended to recite (in clean copy) a medical treatment tool for an endoscope used in combination with a medical endoscope having a slender channel, comprising:

"a close-wound coil which can be inserted into the channel, the close-wound coil including;

a first axis extending between the distal end and proximal end; and

a wire which is wound spirally and closely over a predetermined length around the first axis, and has a center axis extending in the length direction thereof;

wherein the wire has a section perpendicular to the center axis, a second axis bisecting the center axis within the section and perpendicular to the first axis, and a third axis bisecting the center axis within the section and perpendicular to the second axis, the medical treatment tool further comprising:

a control section which is provided in the close-wound coil and rotates the close-wound coil with respect to the channel;

wherein the cross section of the wire is formed to have the second axis larger than the third axis; and

when a flexural rigidity of the wire has a circular cross section with a diameter equal to an outside diameter in the direction of the second axis of the cross section, is formed homogeneously across the entire circular cross section, and is formed substantially the same as a flexural rigidity of a first reference wire extending in the direction perpendicular to the cross section, the wire has a lower torsional rigidity than that of the first reference wire."

The amendments to claims 1-3, 7, 13 and 16 are fully supported in the original disclosure. Thus, no new matter has been introduced into the disclosure by way of the present amendments to independent claims 1-3, 7, 13 and 16.

Turning now to the prior art, Ouchi discloses a sheath which is formed from two coil pipes 1a and 1b superimposed on one another with no radial gap therebetween. The winding direction of the coil pipes are opposite to each other.

Superimposition of the two coil pipes 1a and 1b makes bending difficult, which would make the coils impossible to be inserted in a long endoscope.

Smith disclose a clip applier 10 comprising a flat wire wound outer tubular coil 12. Various wires 22, 24 and 30 are inserted inside the coil 12 via a barrier sheath 36. Further, an HDPE sheath 150 covers the outside, and the length is formed as 150 to 250mm.

As is obvious from a handle 40 arranged at the proximal end, this coil 12 does not transfer the rotation force to an end effector assembly 13. Further, it is obvious that bending becomes difficult by providing the sheath 150.

With regard to the rejections of claims 1-9, 12, 16 and 17 and 1-10 and 12-17 under 35 U.S.C. § 102(e), a close-wound coil and medical treatment tool having the features discussed above and as recited in independent claims 1-3, 7, 13 and 16, is nowhere disclosed in either Ouchi or Smith. Since it has been decided that “anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim,”¹ independent claims 1-3, 7, 13 and 16 are not anticipated by either Ouchi or Smith. Accordingly, independent claims 1-3, 7, 13 and 16 patentably distinguish over both Ouchi and Smith and are allowable. Claims 4-6, 8-10, 12, 14, 15 and 17 being dependent upon an allowable base claim, are thus at least allowable therewith. Consequently, the Examiner is respectfully requested to withdraw the rejections of claims 1-9, 12, 16 and 17 and 1-10 and 12-17 under 35 U.S.C. § 102(b).

With regard to the rejection of claim 11 under 35 U.S.C. § 103(a), since independent claim 7 patentably distinguishes over the prior art and is allowable, claim 11 is at least allowable therewith because it depends from an allowable base claim. Consequently, the

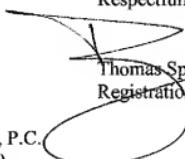
¹ Lindeman Maschinenfabrik GMBH v. American Hoist and Derrick Company, 730 F.2d 1452, 1458; 221 U.S.P.Q. 481, 485 (Fed. Cir., 1984).

Examiner is respectfully requested to withdraw the rejection of claim 11 under 35 U.S.C. § 103(a).

Furthermore, new claim 18 has been added to further define the patentable invention. New claim 18 is fully supported in the original disclosure. Thus, no new matter has been entered into the disclosure by way of the addition of new claim 18. Applicants respectfully submit that new claim 18 patentably distinguishes over the prior art and is allowable.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,


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